INTEGRATED PEST MANAGEMENT

School Recordkeeping Calendar 2017–2018

SCHOOL IPM PROGRAM | SCHOOL-IPM@CDPR.CA.GOV | WWW.CDPR.CA.GOV/SCHOOLIPM

California Environmental Protection Agency
dpr Department of Pesticide Regulation

California School & Child Care IPM

UC IPM

"Keep the shrubs, trees and planters thin, to help keep a pest from nesting in."

Tom Leonard, Anaheim Union High School District.

California Environmental Protection Agency
Department of Pesticide Regulation

INTEGRATED PEST MANAGEMENT

School Recordkeeping Calendar 2017–2018

WHY USE IPM?

Integrated Pest Management (IPM) is the preferred method of managing pests at school sites under California's Healthy Schools Act (HSA) to reduce children's exposure to pesticides. IPM focuses on the long-term prevention of pests through use of a combination of techniques such as identifying and monitoring pests, understanding pest biology, excluding pests from structures, using non-chemical methods, and keeping records. Pesticides that pose the least harm to people and the environment are only used if other methods do not achieve adequate control.

ABOUT THIS CALENDAR

This calendar is designed as a planning tool for managing major pests of school buildings and grounds. It is intended to serve as a reminder of pest management procedures by month, to help schools use integrated pest management with other school maintenance activities, and to provide a place to record pest monitoring results and pest management plans.

The California School and Child Care IPM program held their first school maintenance and operations calendar photo contest for the 2017–2018 calendar. On the cover and the months of August, September, November, January, and March feature the winning contest photos. What schools find challenging and their pest management solutions are demonstrated and stated with enthusiasm.

California School & Child Care IPM

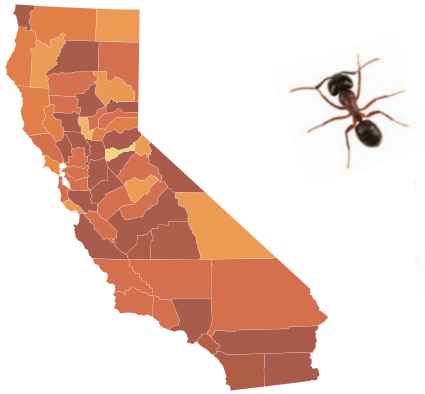
UC IPM

REPORTING, RECORDKEEPING, AND THE HEALTHY SCHOOLS ACT

This calendar can help you keep track of your pest management activities. The HSA requires each school district to report pesticide applications by school employees to the Department of Pesticide Regulation (DPR) annually. Information that must be included is the product name, the time of the application, location, and the amount of the product. Do not report pesticides applied by pest management contractors. Reports for 2017 pesticide use are due by January 30th, 2018.

The HSA requires each school to keep records onsite for four years of every pesticide application, except certain exempted pesticides. Records must include the pesticide product name, manufacturer's name, U.S. EPA registration number, date and areas of application, reason for application, and amount of pesticide used. Records must be made available to the public upon request.

IPM is based on consistently inspecting and monitoring for pests. In addition to the mandatory record of pesticides used on school grounds, you should keep records of information gathered on pests and the problems they cause. Knowing when, where, and what pests are seen, their numbers, and the extent of actual or potential damage at each location, can help you focus your district's pest management efforts. Recordkeeping helps to anticipate conditions that trigger pest problems, and prevent them or deal with them before they become more serious. Recordkeeping also provides the important documentation needed to justify budget requests for pest management tools and materials.



SCHOOL DISTRICT PESTICIDE USE REPORTING BY COUNTY

In 2015, pesticide use information was submitted for 80% of California's school districts, where 95% of California's children attend public K–12 schools. The darkest colors on the map show counties with the greatest percent of school districts with submitted pesticide use information. The lighter colors represent areas where there is less reporting and room for improvement. In 12 out of the 58 counties pesticide use information was received for 100% of the school districts.

SCHOOL IPM TRAINING

DPR offers free online training on their website. Check www.cdpr.ca.gov/schoolipm/training for courses that meet this requirement. DPR also offers one day in-person workshops. These workshops teach IPM principles and include hands-on demonstrations so attendees can learn how to prevent and manage pests around school buildings and grounds.

For school IPM information, DPR has a video series available on the DPR YouTube channel at www.youtube.com/user/CaliforniaPesticides. These videos are short, fun, and engaging to watch.

FOR MORE DETAILS ON PREVENTING AND MANAGING PEST PROBLEMS

- Visit the DPR School IPM Web site at: **www.cdpr.ca.gov/schoolipm**
- Visit the University of California Statewide IPM Program Web site at: **www.ipm.ucanr.edu.** This Web site includes many useful features for school pest managers, including Pest Notes on how to manage more than 160 common pest problems, photo galleries of natural enemies and weeds, an easy-to-use key for ant identification, and the UC Guide for Healthy Lawns.

AUGUST 2017

School district staff showing off a variety of exclusion methods used for pest prevention.
From left to right: Fidel Montoya, Vic Lang, and Tom Leonard, Anaheim Union High School District

"No pest! I mean no pest comes into our school facilities and disrupts quality education."

TOM LEONARD, ANAHEIM UNION HIGH SCHOOL DISTRICT

Door sweeps are probably the single most important pest prevention tool. Be sure to inspect yearly to see if they need replacement.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

START THE NEW SCHOOL YEAR OFF RIGHT

The beginning of the school year is a great time to do the following:

Take IPM Training – Before applying any pesticide, complete a DPR-approved training course to learn about school IPM and the safe use of pesticides at schools and for children's health. Training must be completed once per year. Approved courses are listed on DPR's School IPM Web site at www. cdpr. ca.gov/schoolipm. Remember: Disinfectants and herbicides are pesticides.

Review and Update Your IPM Plan – An IPM plan details your school district's pest management plans for the year. Develop your plan using DPR's template, which is available on DPR's School IPM Web site. The plan must be posted on your school district website or mailed to all staff and parents (if you don't have a website).

Report Pesticide Use for 2017 – Reports of non-exempt pesticide applications made by school employees must be reported to DPR at least once per year. Reports for applications made in 2017 are due by January 30, 2018. Use the required form (DPR-HSA-118) available on DPR's School IPM Web site. Do NOT report pesticide use by contracted pest management businesses.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

SEPTEMBER 2017

Our Hawk Patrol in Action, San Luis Obispo County Office of Education

A single pair of barn owls can consume up to 2,000 rodents each year.

EXPERT TIP

Our Hawk Patrol Breakfast

Our Hawk Patrol Champion

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

TIPS ON RAPTORS AND RODENT CONTROL

- Raptors such as owls and hawks play a critical role in pest management by eating pocket gophers and other rodents such as voles, mice, and rats.
- Raptors rarely eat every single rodent, but they can be an important part of an IPM program.
- A single pair of barn owls can consume up to 2,000 rodents each year.
- Installing an owl box or hawk perch may encourage raptors to nest nearby and is a good way to learn about these magnificent birds.
- Before placing owl boxes or hawk perches, find out if your district or neighbors use rodenticides. Raptors that eat poisoned rodents may sicken and die.

OTHER PESTS:

- *Gophers:* Concentrate on trapping, especially in irrigated areas. Gopher activity peaks in the fall.
- *Yellowjackets:* They are searching for sweets and proteins—wash out sugary recyclable cans and bottles.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

OCTOBER 2017

Inserting polyurethane backing into a deep crack before caulking

Insert flexible polyurethane backing with good elasticity before caulking deep concrete cracks, to eliminate places that harbor cockroaches and ants.

EXPERT TIP

Ukiah Unified High School maintenance worker caulking over polyurethane rods to seal and repair gaps in expansion joints. These types of cracks and crevices between concrete slabs are perfect habitat for cockroaches and ants.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

TIPS TO MANAGE ANTS

Use baits, not perimeter sprays. Early season baiting for ants is effective to keep ant populations from getting out of hand.

- Identify common ants and management information specific to different ant species: www.ipm.ucdavis.edu/TOOLS/ANTKEY
- *Indoors:* Clean up food or items that may attract and bring ants inside. Vacuum up ants. Wipe away ant trails with soapy water. If it is necessary to bait inside, place bait only where ants are entering the room.
- *Outside:* Eliminate access by sealing cracks and trimming away tree and shrub contacts with buildings. Locate nests and apply baits; baiting outside keeps ants outside.

OTHER PESTS:

- *Turf:* Don't mow if the ground is too wet. Rutted and uneven sports fields can cause as many tripping hazards as a family of ground squirrels.
- *Rodents and other wildlife:* Remove dense vegetation next to buildings to reduce hiding places and roof access.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

NOVEMBER 2017

Roaches hiding in a sewer clean out, Manteca Unified School District

"Seek and you shall find. When I have cockroaches invading into buildings, I check for boxes and sewer clean outs that roaches can hide in."

JOHN LOPEZ, MANTECA UNIFIED SCHOOL DISTRICT

Raised trash cans with straight, slick sides keep out pests. Stands keep the UV stable plastic, made from recycled milk jugs, off the ground and not accessible to most pests at Ukiah Unified High School.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

TIPS TO MANAGE COCKROACHES

Prevent cockroaches from becoming pests in buildings by using sanitation and exclusion.

- Learn how to distinguish a field cockroach from a German cockroach. They are very similar in size and markings except that field cockroaches viewed from below have a dark line between their eyes. Field cockroaches live outside and may come inside in the fall. Installing brush-style door sweeps on doors and vacuuming is probably sufficient for their control.
- Remove cockroaches using a HEPA-filtered vacuum before beginning a baiting program.
- Place sticky traps behind refrigerators, sinks, and next to walls; cockroaches rarely venture into the middle of a room.
- German cockroaches hide in cracks and crevices, so place small drops of gel bait in these areas.

OTHER PESTS:

- *German cockroaches:* Identify and continue to monitor in kitchens.
- *Pigeons:* Install roosting deterrents, like 80-pound monofilament line, 1 to 2 feet apart over frequented and sensitive areas. Seal all openings to eaves, lofts, and steeples.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

DECEMBER 2017

A house mouse is an opportunistic feeder and will eat almost anything.

"Seal off every crack and crevice, to help keep a pest from being a menace."

TOM LEONARD, ANAHEIM UNION HIGH SCHOOL DISTRICT

Storing food in sealed plastic containers on raised shelves prevents pest access and allows for cleaning and pest monitoring underneath the shelves.

Use several sets of traps per mouse. Setting two traps together increases your success. Place triggers next to wall, or place two traps parallel to wall with triggers to the outside.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 / 31	25	26	27	28	29	30

TIPS TO MANAGE MICE

Periodically check for droppings, fresh gnaw marks, and tracks that indicate areas where mice are active.

- Monitor year round.
- Set traps behind objects, in dark corners, and in places where there is evidence of mouse activity.
- Focus on prevention: it is more effective to control rodents before their numbers get high.
- Use several more traps than the number of mice suspected.
- Exclusion is the most permanent form of house mouse control, when done before mice get into the building.
- Seal cracks in building foundations, openings around pipes, and eliminate all gaps and openings larger than ¼ inch.

OTHER PESTS:

- *Yellowjackets:* Repair windows and screens and caulk openings in walls to prevent nesting in wall voids. This is a good time to review structural and landscape pest management contracts.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

JANUARY 2018

A gopher giving its 'Is that all you got?' look with extensive damage on the field behind it. Manteca Unified School District

"We are trapping with great results. It's awesome."

JOHN LOPEZ, MANTECA UNIFIED SCHOOL DISTRICT

Each gopher can make 3-6 mounds per day.

Active tunnel systems are plugged unless gophers are above ground feeding.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	**Pesticide Use Reports Due** 30	31			

TIPS TO MANAGE GOPHERS

Trap and control populations in winter and early spring, when populations are lowest, prior to breeding.

- Monitor weekly: count active mounds and evaluate field condition for weeds.
- Maintain healthy turf by aerating and overseeding.
- Minimize white clover and other herbaceous weeds which are preferred food for gophers.
- Identify areas where gophers are moving into fields and install exclusion fencing along fence lines, at least 24” deep, and 18” above the level of the soil.
- Begin trapping with box, cinch, or claw-type impaling traps.
- Population activity will increase in April and May; continue to monitor and trap to keep population in check.

OTHER PESTS:

- *Non-turf weeds:* Flame or heat treat in hardscapes and irrigated landscapes. This is a poor time to plant trees and shrubs, since the soil is too wet, leading to soil compaction, disease development, and weeds.
- *Ground squirrels:* Plan for managing adults now, before breeding season begins. Traps are practical for control when squirrel numbers are low to moderate.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

FEBRUARY 2018

False Black Widow Spider with egg sacks

Vacuum and sweep windows and corners regularly to remove webs.

EXPERT TIP

Black widow spiders are the most common harmful spider in California.

Spiders and beneficial insects are an environmentally friendly and a cost-effective way to manage other pests.

Spiders are beneficial because they eat large amounts of insects.

Most spiders are harmless and can be left alone.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

TIPS TO MANAGE SPIDERS

When necessary, non-chemical practices are effective for managing spiders:

- Repair window screens and seal cracks.
- Vacuum and sweep windows and corners regularly to remove webs.
- Black widows are nocturnal, so search for them at night.
- Brown widows have distinctive, spiny egg sacs that make them easy to spot.
- You can easily knock the spiders and their egg sacs off their webs with a fly swatter and squash them.

OTHER PESTS:

- *Gophers:* Trap! Population activity is increasing; mating will begin by the end of this month.
- *Ground squirrels:* Breeding season has begun; monitor for increasing activity.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

MARCH 2018

Monitor, capture, relocate bee condo swarm trap, Riverside Unified School District

Irrigation vault and bees, IPM Technician Hugo Gutierrez, Riverside Unified School District.

Honey bee laden with full pollen baskets.

The Riverside Unified School District adopted an innovative bee program using portable pheromone swarm traps. The traps do a remarkable job of drawing in swarming and nesting bees, which allows for safe removal of the bees without having to destroy them. The school district works with a local grower, who relocates the traps to their orchard and fields, where the bees can do what they do best—pollinate. They have removed over 300 swarms in 6 years. The Riverside Unified School District was awarded a 2016 IPM Achievement Award for innovation.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

TIPS ON BEE SWARMS

- Swarming is the honey bee's method of colony reproduction.
- A swarm consists of a large number of bees flying in a cloud that seems to drift along through the air. When the bees land on an object they form a swarm cluster.
- The need for managing bee swarm clusters depends on the location and whether the bees are establishing a hive. Swarms moving on without establishing a hive aren't a concern.
- If the swarm cluster or a hive needs to be removed, call a beekeeper.
- Swarm clusters are temporary by nature and generally do not need to be managed.

OTHER PESTS:

- *Non-turf weeds:* Monitor and manage emerging weed seedlings.
- *Monitoring:* Pest populations start to build in spring. Make sure to monitor pest problem areas early.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

APRIL 2018

Landscapes can often be effectively managed through mowing alone. To maintain healthy turf, mow as high as the landscape function allows.

Avoid mowing stress: mow high (2 ½ to 3 inches), mow often, mow when turf is dry, and keep mower blade sharp.

EXPERT TIP

Oxtongue is a member of the sunflower family. Flame weeding may be an effective option for the control of oxtongue.

Flaming—Young weeds in open areas can be controlled with small flaming units. Propane burners are available to rapidly pass over young weeds to kill them. A quick pass over the plant is all that is necessary; do not burn the weed to the ground. Flaming is more effective on broadleaf weeds than grasses. Be careful not to flame dry vegetation, dry wood chips, or near buildings and other flammable materials, and don't get the flame near desired plants.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

TIPS TO MANAGE TURF WEEDS

This is a good time to apply slow release organic fertilizers as recommended by a soil analysis. Avoid water-soluble fertilizers that can leach as nitrate into groundwater.

- Determine why weeds are present and repair underlying problems (for instance overwatering, overfertilizing, or compaction).
- Manage young weeds by hand pulling, hoeing, or flaming.
- Aerate turf, de-thatch if needed, and overseed with appropriate variety of grass seed.
- Avoid mowing stress: mow high (2 ½ to 3 inches), mow often, mow when turf is dry, and keep mower blade sharp.
- Improve weed management by installing mowing strips, raising fencing to allow line trimmer access, and altering traffic patterns to reduce compaction.

OTHER PESTS:

- *Argentine Ants:* Switch outside baits to a protein-base.
- *Rats and wildlife:* Remove vegetation near buildings that provide shelter and roof access.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

MAY 2018

A well-tended garden at a Modesto City Schools site. Mulch conserves soil moisture and also reduces compaction and erosion from irrigation, rainfall, and foot traffic. The benefits and drawbacks of mulch vary by type.

Mulches suppress annual weeds by limiting light required for establishment.

EXPERT TIP

Discourage pigeon roosting and nesting with wire spikes, and by installing barriers at 45-degree angles.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

TIPS TO MANAGE WILDLIFE

- Prevent raccoons, opossums, skunks, and feral cats from becoming pests by using habitat modification and exclusion.
- Thin bushes and trim trees near buildings to reduce hiding places and roof access.
- Put garbage in tightly closed containers that can't be tipped over.
- Hire a professional wildlife control operator to remove animals beneath or in a building. It's illegal to relocate wildlife in California without the proper permits.
- Remove food sources to avoid attracting or sustaining wildlife: Don't put out food for stray cats.
- Keep dumpster lids closed; if they don't close properly, have them replaced.
- Don't waste your money on strategies that don't work long-term: Motion-activated noise, light, or sprinkler devices, or scare techniques such as flags and scarecrows.

OTHER PESTS:

- *Rats and mice:* Look for droppings, fresh gnaw marks, smudge marks, and tracks which indicate activity.
- *Pigeons:* Look for evidence of pigeon activity. Record location of birds at dawn, midday and evening to determine where building modifications will be most effective.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

JUNE 2018

Keeping plants away from buildings increases light and air circulation, and reduces moisture, like these well-trimmed bushes near a Modesto City Schools building.

"Keep the shrubs, trees and planters thin, to help keep a pest from nesting in."

TOM LEONARD, ANAHEIM UNION HIGH SCHOOL DISTRICT

When planting trees and shrubs, always consider being able to trim branches at least 6 feet away from buildings. Pests, such as roof rats, can jump far distances from branches to your roof.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

TIPS TO MANAGE RATS

Combined practices, including sanitation, rat-proofing, and snap traps, should be used to manage rat infestations.

- Identify the species; Norway and roof rats behave differently.
- Monitor throughout the year, looking for rat droppings and chewing damage.
- Thin or remove vegetation near buildings: it may provide rats with shelter and roof access.
- Seal or screen openings larger than ¼ inch to exclude rats and mice.
- Place traps along walls and check frequently. Rats are very cautious; leaving traps baited but unset for several days (pre-baiting) will improve trap catches once actual trapping begins.

OTHER PESTS:

- *Spiders:* Remove webs outdoors with cobweb brushes, longhandled brooms, or a strong stream of water.
- *Trees:* This is a good time to prune trees susceptible to diseases, such as anthracnose (often called leaf, shoot, or twig blight fungus), and bacterial diseases like cankers.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

JULY 2018

Yellowjackets are often very aggressive. Rinse recyclables to reduce wasp encounters and painful stings.

Place traps away from areas frequented by students.

EXPERT TIP

Most paper wasp species are relatively unaggressive, but they can be a problem when they nest over doorways or in other areas of human activity.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

TIPS TO MANAGE YELLOWJACKETS

Pay attention to yellowjackets in early spring to avoid a bigger problem later in summer and fall.

- Put out lure or water traps to catch queens before they establish nests and rear more yellowjackets.
- Place traps away from areas frequented by students.
- Use protein-containing baits, such as cat food or turkey ham throughout early spring. Switch to sugar-based traps in summer and fall.
- Locate yellowjacket nests during the day and then return in the cool of morning before dawn to carefully treat nests.
- Empty and clean garbage containers and garbage container lids frequently.
- When feasible, use self-closing garbage cans to shut out wasps.

OTHER PESTS:

- *Ground squirrels:* They estivate (summer dormancy) during the hottest summer months, so control efforts are not warranted.
- *Turf:* Check water requirements and adjust sprinklers to the recommended rate. Check sprinklers to be sure all are working.

NOTES

California Environmental Protection Agency
dpr Department of Pesticide Regulation

THE 2017–2018 IPM CALENDAR AT A GLANCE

AUGUST-2017
prevention

SEPTEMBER-2017
rodent control

OCTOBER-2017
ants

NOVEMBER-2017
cockroaches

DECEMBER-2017
mice

JANUARY-2018
gophers

FEBRUARY-2018
spiders

MARCH-2018
bees swarms

APRIL-2018
turf weeds

MAY-2018
wildlife

JUNE-2018
rats

JULY-2018
yellowjackets

** Thank you school staff for submitting the winning photos!*

PHOTO CREDITS

Cover and Inside Cover Photos—Keep the Trees, Shrubs and Planters Thin, To Help Keep a Pest From Nesting In* (Devany Dominguez, Anaheim Union High School District), all others are from iStockphoto

August—No Pest!* (Devany Dominguez, Anaheim Union High School District), Door Sweep (Eric Denemark, DPR)

September—Our Hawk Patrol in Action*, Our Hawk Patrol Breakfast*, and Our Hawk Patrol Champion* (Wendy Galitello, San Luis Obispo County Office of Education)

October—Seal and repair concrete gaps at Ukiah Unified High School (Ashley Freeman, DPR)

November—Cockroaches in a sewer clean out* (John Lopez, Manteca Unified School), raised trash cans at Ukiah Unified High School (Ashley Freeman, DPR)

December—House mouse (iStockphoto), storage to prevent pests and mouse traps (DPR)

January—"Is that all you got look?"* gopher damage at a high school (John Lopez, Manteca Unified School District); gopher mounds and gopher looking out from tunnel (iStockphoto)

February—False Black Widow Spider with egg sacks, and Black Widow Spider (Kim Steinmann, DPR)

March—Irrigation Vault and Bees* (Eric Troxel, Riverside Unified School District); Monitor, Capture, Relocate Bee Condo Swarm Trap* (Hugo Gutierrez, Riverside Unified School District); Honey bee laden with full pollen baskets (Kim Steinmann, DPR)

April—Maintenance staff on lawn mower, and Oxtongue (DPR)

May—Modesto Unified School District garden (Belinda Messenger, DPR), Roosting Pigeon (iStockphoto)

June—Well-trimmed bushes near a school building in Modesto Unified School District (Belinda Messenger, DPR), When planting trees and shrubs (Ashley Freeman, DPR)

July—Yellowjacket wasp (Jim Baker, North Carolina State University, Bugwood.org), paper wasps on nest (iStockphoto)

Any reference in this calendar to companies, commercial products, their source, or use is not to be construed as either an actual or implied endorsement by the Department of Pesticide Regulation. Mention is made of some representative products, but the Department of Pesticide Regulation does not recognize any product as superior to any other.

California Environmental Protection Agency
dpr Department of Pesticide Regulation
School and Child Care IPM Program
916.445.2489
http://apps.cdpr.ca.gov/schoolipm

UC IPM
University of California
Statewide Integrated Pest
Management (IPM) Program
http://ipm.ucanr.edu/PMG/menu.homegarden.html